

AMENDMENTS TO THE CLAIMS

Claims 1-27: (Cancelled)

28. (Previously presented) Butene-1 copolymers comprising a content up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:

- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
- b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%; and
- c) an absence of 4,1 insertions of butene units.

29. (Previously presented) The butene-1 copolymers according to claim 28, wherein the content of (mmmm) is >99% and the reactivity ratio $r_1 \cdot r_2 \leq 1$.

30. (Previously presented) The butene-1 copolymers according to claim 28 further comprising a PI ranging from 3-10.

31. (Previously presented) The butene-1 copolymers according to claim 28, wherein the content of the at least one comonomer ranges from 0.1 to 35% by mol.

32. (Previously presented) The butene-1 copolymers according to claim 31, wherein the content of the at least one comonomer ranges from 0.5 to 30% by mol.

33. (Previously presented) The butene-1 copolymers according to claim 32, wherein the at least one comonomer is ethylene.

34. (Previously presented) The butene-1 copolymers according to claim 32, wherein the at least one comonomer is propylene.

35. (Previously presented) The butene-1 copolymers according to claim 28, wherein the content of the at least one comonomer is lower than about 3% by mol.

36. (Previously presented) The butene-1 copolymers according to claim 32, wherein the content of the at least one comonomer ranges from 2-15% by mol.

37. (Previously presented) The butene-1 copolymers according to claim 28, wherein the content of the at least one comonomer is at least 12% by mol.

38. (Previously presented) The butene-1 copolymers according to claim 37, wherein the comonomer is ethylene.

39. (Previously presented) The butene-1 copolymers according to claim 37, wherein the butene-1 copolymers do not show a melting point at the thermal analysis.

40. (Previously presented) A polymer composition comprising: (A) from 1 to 99wt % of a butene-1 copolymer comprising a content up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:

- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
- b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%; and
- c) an absence of 4,1 insertions of butene units;

and (B) from 1 to 99% of another polymeric component the said percentages being referred to the sum of (A) and (B).

41. (Previously presented) The polymer composition according to claim 40, wherein the component (B) comprises an olefin (co)polymer.

42. (Previously presented) The polymer composition according to claim 40, wherein the component (B) is an ethylene containing (co)polymer, a propylene containing (co)polymer, or mixtures thereof.

43. (Previously presented) A polymer composition comprising:

- (A) from 5 to 40%wt of butene-1 copolymers comprising from 1 to 15% by mol of ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:
- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
 - b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%; and
 - c) an absence of 4,1 insertions of butene units; and
- (B) from 60 to 95%wt of a propylene copolymer comprising from 1 to 30 % by mol of at least one comonomer, the comonomer being selected from ethylene and an α -olefin of formula $\text{CH}_2=\text{CHR}$, wherein R is a $\text{C}_2\text{-C}_{10}$ hydrocarbon group.

44. (Previously presented) The polymer composition according to claim 43, wherein said α -olefin is butene-1.

45. (Previously presented) The polymer composition according to claim 43, wherein the component (B) is selected from either (a) a propylene copolymer comprising both ethylene and butene-1, wherein the content of ethylene is from 1 to 10% by mol and the content of butene-1 is from 1 to 10% by mol, or (b) a propylene copolymer containing from 2 to 15% by mol of butene-1.

46. (Currently amended) A polymer composition comprising: (A) a butene-1 copolymer with ethylene comprising a content of ethylene from higher than 10% up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:

- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
 - b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%;
 - c) an absence of 4,1 insertions of butene units; and
 - d) not showing a melting point; and
- (B) a butene-1 copolymer with ethylene comprising a content of ethylene lower than 10% by mol up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, and mixtures thereof, the butene-1 copolymers further comprising:
- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
 - b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%;

- c) an absence of 4,1 insertions of butene units; and
- d) showing a melting point.

47. (Canceled)

48. (Previously presented) A polymer composition comprising:

- (i) from 5 to 25% wt of a butene-1 copolymer comprising a content up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:
 - a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
 - b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%; and
 - c) an absence of 4,1 insertions of butene units;
 and
- (ii) from 75 to 95%wt of an ethylene polymer; said percentages being based on the sum of (i)+(ii).

49. (Previously presented) Manufactured articles obtained from a composition comprising at least one butene-1 copolymer comprising a content up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:

- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
- b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%; and
- c) an absence of 4,1 insertions of butene units.

50. (Currently amended) A process for preparing butene-1 copolymers comprising a content up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:

- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
 - b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%; and
 - c) an absence of 4,1 insertions of butene units,
- the process comprising copolymerizing butene-1 and at least one comonomer, the

comonomer being selected from ethylene, propylene, and mixtures thereof, in presence of a stereospecific catalyst comprising (A) a solid catalyst component comprising a Ti compound of formula $\text{Ti}(\text{OR})_{n-y}\text{X}_y$, where $n=4$; X is a halogen; and y is a number from 1 to n, and an electron-donor compound selected from phthalates, supported on MgCl_2 ; (B) an alkylaluminum compound; and (C) ~~an external electron-donor compound of formula $\text{R}_a^5\text{R}_b^6\text{Si}(\text{OR}^7)_e$, wherein a=0 and b=1; e is 3; and R^6 is a branched alkyl or cycloalkyl group optionally comprising at least one heteroatom; and R^7 is methyl~~ the xyltrimethoxysilane external donor.

51. (Canceled)

52. (Previously presented) The process according to claim 50, wherein the process is carried out in liquid butene-1.

53. (Previously presented) The process according to claim 52, wherein the process is carried out in at least two reactors working under different reaction conditions.

54. (new) Butene-1 copolymers comprising a content up to 40% by mol of at least one comonomer, the comonomer being selected from ethylene, propylene, or mixtures thereof, the butene-1 copolymers further comprising:

- a) a product of the reactivity ratios $r_1 \cdot r_2 \leq 1.5$;
- b) a content of butene-1 units in form of isotactic pentads (mmmm) > 98.5%; and
- c) an absence of 4,1 insertions of butene units,

the butene-1 copolymers being produced by a process comprising copolymerizing butene-1 and the at least one comonomer in the presence of a stereospecific catalyst comprising: (A) a solid catalyst component comprising a Ti compound of formula $\text{Ti}(\text{OR})_{n-y}\text{X}_y$, where $n=4$; X is a halogen; and y is a number from 1 to n, and an electron-donor compound selected from phthalates, supported on MgCl_2 ; (B) an alkylaluminum compound; and (C) a the xyltrimethoxysilane external donor.